



PRESS RELEASE

The opening of the World Hearing Center in Kajetany

On May 10, 2012, the World Hearing Center (WHC) - the unit of the Institute of Physiology and Pathology of Hearing which provides a complex care for people with congenital and acquired hearing, voice, speech and balance disorders - was opened.

This is a unique and the first on the international scale unit of such type. Its establishment is significant for all patients with hearing, voice and speech problems, as well as for the development of science and new methods of diagnostics and treatment of sensory impairments. The Center will be of a great importance for the integration of the scientific society around interdisciplinary issues which significantly influence the development of modern information society founded on requiring of knowledge and interpersonal communication.

WHC was created **under the initiative and in accordance with the idea of Prof. Henryk Skarżyński** – Director of the Institute of Physiology and Pathology of Hearing.

- Creation of the World Hearing Center is the effect of regular and systematic work carried out over the years in Poland and in other countries on all continents, and of building partner relationships with national and international scientists in various fields. The WHC is not only the unique in the world unit - it is the effect of the realization of many challenges in scientific, clinical, didactic and organizational fields. This is the response of specialists in medicine, biomedical engineering, acoustics, physics, material and informatics nanotechnology, psychology and pedagogy to the growing needs of developing information society – says Prof. H. Skarżyński

The Center has been build in record time taking just **15 months**, thanks to the work and involvement of **811** engineers, technicians and workers of various specialties. The floor area of the World Hearing Center is **20 418 sq m**.

The total cost of building of the World Hearing Center is **123 450 000** PLN (29 400 000 EUR) therein grant from the EU constitutes **87 200 000** PLN (**70,6%**), grant from the Ministry of Health constitutes **3 950 000** PLN (**3,2 %**) and the own resources of the Institute accounts for **32 300 000** PLN (**26,2 %**).

The Center is a modern hospital offering medical services at the highest world level, equipped with the unique medical instrumentation with vast technical support, and at the same time it is a perfectly prepared Education Center, which will perform extensive research and educational activities and trainings for specialists from all over the world, in the domains of medicine, clinical engineering and speech therapy.

In the Education Center there are:

- **the only in Poland 2 multimedia studios of telemedicine**
- **7 conferences rooms**, where at the same time can gather 800 people
- spacious exhibition area

The particular attention should be given to the **Clinical Anatomy Laboratory** (an integral part of the Education Center) with modern equipment for surgical trainings performed on anatomical specimens and computer simulators. **40 people** can be trained there at the same time. This is the **biggest** laboratory of such profile **in the world**.

The establishment of the World Hearing Center enabled to create or equip the modern units:

- ✓ Departments of:
 - Implants and Auditory Perception
 - Epidemiology and Screening
 - Experimental Audiology
 - Genetics
 - Teleaudiology
- ✓ Bioimaging Research Center

These unique in the world laboratories and teams are dedicated to the extensive clinical, scientific and research activity:

- **Implants and Auditory Perception Department** – the team develops and implements innovative solutions in the area of pre- and post-surgery care over patients with hearing implants of various kind, and also develops new methods of examinations and audiology measurements;
- **Epidemiology and Screening Department** – the priority goal of this team is cooperation with European centers in order to develop integrated system of universal hearing, vision and speech screening in school-age children in Europe;
- **Experimental Audiology Department** – the team focuses mainly on basic studies of hearing system, as well as on developing new research and diagnostic procedures regarding various types and phases of partial deafness;
- **Genetics Department** – the team of the Department conducts scientific research at the international level, using the state-of-the-art techniques of molecular biology, which enable to explain the mechanisms leading to congenital hearing impairment and to perform extensive molecular diagnostics for patients;
- **Department of Teleaudiology** – the main tasks of the team are: scientific and experimental development in order to create specialist methods and telemedical tools to be implemented in treatment and rehabilitation of hearing and speech disorders, research activity, analysis of ICT market.
- **Bioimaging Research Center** – the first in Poland and one of a few in the world, performs research which enable to develop new diagnostic methods using the advantages of the fMRI (functional Magnetic Resonance Imaging) techniques together with simultaneous encephalographic brain test.

The World Hearing Center has increased the number of operating rooms, what will shorten the time of waiting for 20 000 patients. **Four new operating rooms** are equipped with state-of-the-art medical and multimedia equipment. **Up to 50 per day** will increase the number of hearing improving surgeries, as well as the number of long-lasting, complicated interdisciplinary procedures from the area of oral and maxillofacial surgery, reconstructive surgery and otoneurosurgery. In a newly opened part of the Center there will **91 beds** in

comfort pre- and post-surgeries rooms – friendly for children. Especially for children playing rooms, squares and parks will be created, as well as a complete social infrastructure.

The World Hearing Center is equipped with integrated system for audio and video recording. **100 000 kilometers** of wires and cables enable communication and usage of state-of-the-art multimedia communication solutions. All telemedical connections used in everyday medical/clinical practice, such as telerehabilitation, telefitting, teleconsultations, will be registered in a central data base. Also all surgical procedures will be registered and archived in a central surgical register, what will create the biggest in the world **base containing scientific material** for implementation of new diagnostic and surgical procedures.

The whole video network works in Full HD resolution what ensures the picture of high definition and quality. The system allows to watch in any room in the Center a live transmission from surgeries, for example, directly from the microscope or operating lamp. It creates enormous educational possibilities, because future physicians do not have to be in the operation room – what can disturb the work of medical personnel – but they can watch transmission on computer and projection screens. Thanks to this state-of-the-art videoconference system we have a capability to connect with centers all over the world and realize live transmissions from operating and conference rooms.